# RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/527,786_

Source: _PCT_

Date Processed by STIC: _3-25-05_

# *ENTERED*

PCT

RAW SEQUENCE LISTING   DATE: 03/25/2005
PATENT APPLICATION: **US/10/527,786**  TIME: 09:02:13

Input Set : **A:\PTO.SR.txt**
Output Set: **N:\CRF4\03252005\J527786.raw**

```
        3 <110> APPLICANT: TING, KANG
        5 <120> TITLE OF INVENTION: NELL-1 ENHANCED BONE MINERALIZATION
        7 <130> FILE REFERENCE: 38586-327000
C-->    9 <140> CURRENT APPLICATION NUMBER: US/10/527,786
C-->    9 <141> CURRENT FILING DATE: 2005-03-11
        9 <150> PRIOR APPLICATION NUMBER: PCT/US2003/029281
       10 <151> PRIOR FILING DATE: 2003-09-15
       12 <160> NUMBER OF SEQ ID NOS: 2
       14 <170> SOFTWARE: PatentIn version 3.0
       16 <210> SEQ ID NO: 1
       17 <211> LENGTH: 2977
       18 <212> TYPE: DNA
       19 <213> ORGANISM: Homo sapiens
       21 <400> SEQUENCE: 1
       22 tagcaagttt ggcggctcca agccaggcgc gcctcaggat ccaggctcat ttgcttccac      60
       24 ctagcttcgg tgccccctgc taggcgggga ccctcgagag cgatgccgat ggatttgatt     120
       26 ttagttgtgt ggttctgtgt gtgcactgcc aggacagtgg tgggctttgg gatggaccct     180
       28 gaccttcaga tggatatcgt caccgagctt gaccttgtga acaccaccct tggagttgct     240
       30 caggtgtctg gaatgcacaa tgccagcaaa gcattttat ttcaagacat agaaagagag     300
       32 atccatgcag ctcctcatgt gagtgagaaa ttaattcagc tgttccagaa caagagtgaa     360
       34 ttcaccattt tggccactgt acagcagaag ccatccactt caggagtgat actgtccatt     420
       36 cgagaactgg agcacagcta ttttgaactg gagagcagtg gcctgaggga tgagattcgg     480
       38 tatcactaca tacacaatgg gaagccaagg acagaggcac ttccttaccg catggcagat     540
       40 ggacaatggc acaaggttgc actgtcagtt agcgcctctc atctcctgct ccatgtcgac     600
       42 tgtaacagga tttatgagcg tgtgatagac cctccagata ccaaccttcc cccaggaatc     660
       44 aatttatggc ttggccagcg caaccaaaag catggcttat tcaaagggat catccaagat     720
       46 gggaagatca tctttatgcc gaatggatat ataacacagt gtccaaatct aaatcacact     780
       48 tgcccaacct gcagtgattt cttaagcctg gtgcaaggaa taatggattt acaagagctt     840
       50 ttggccaaga tgactgcaaa actaaattat gcagagacaa gacttagtca attggaaaac     900
       52 tgtcattgtg agaagacttg tcaagtgagt ggactgctct atcgagatca agactcttgg     960
       54 gtagatggtg accattgcag gaactgcact tgcaaaagtg gtgccgtgga atgccgaagg    1020
       56 atgtcctgtc cccctctcaa ttgctcccca gactccctcc cagtacacat tgctggccag    1080
       58 tgctgtaagg tctgccgacc aaaatgtatc tatggaggaa aagttcttgc agaaggccag    1140
       60 cggattttaa ccaagagctg tcgggaatgc cgaggtggag ttttagtaaa aattacagaa    1200
       62 atgtgtcctc ctttgaactg ctcagaaaag gatcacattc ttcctgagaa tcagtgctgc    1260
       64 cgtgtctgta gaggtcataa ctttttgtgca gaaggaccta aatgtggtga aaactcagag    1320
       66 tgcaaaaact ggaatacaaa agctacttgt gagtgcaaga gtggttacat ctctgtccag    1380
       68 ggagactctg cctactgtga agatattgat gagtgtgcag ctaagatgca ttactgtcat    1440
       70 gccaatactg tgtgtgtcaa ccttcctggg ttatatcgct gtgactgtgt cccaggatac    1500
       72 attcgtgtgg atgacttctc ttgtacagaa cacgatgaat gtggcagcgg ccagcacaac    1560
       74 tgtgatgaga atgccatctg caccaacact gtccagggac acagctgcac ctgcaaaccg    1620
       76 ggctacgtgg ggaacgggac catctgcaga gctttctgtg aagagggctg cagatacggt    1680
       78 ggaacgtgtg tggctcccaa caaatgtgtc tgtccatctg gattcacagg aagccactgc    1740
```

```
 80 gagaaagata ttgatgaatg ttcagaggga atcattgagt gccacaacca ttcccgctgc 1800
 82 gttaacctgc cagggtggta ccactgtgag tgcagaagcg gtttccatga cgatgggacc 1860
 84 tattcactgt ccggggagtc ctgtattgac attgatgaat gtgccttaag aactcacacc 1920
 86 tgttggaacg attctgcctg catcaacctg gcaggggggtt ttgactgtct ctgcccctct 1980
 88 gggccctcct gctctggtga ctgtcctcat gaaggggggc tgaagcacaa tggccaggtg 2040
 90 tggaccttga aagaagacag gtgttctgtc tgctcctgca aggatggcaa gatattctgc 2100
 92 cgacggacag cttgtgattg ccagaatcca agtgctgacc tattctgttg cccagaatgt 2160
 94 gacaccagag tcacaagtca atgtttagac caaaatggtc acaagctgta tcgaagtgga 2220
 96 gacaattgga cccatagctg tcagcagtgt cggtgtctgg aaggagaggt agattgctgg 2280
 98 ccactcactt gccccaactt gagctgtgag tatacagcta tcttagaagg ggaatgttgt 2340
100 ccccgctgtg tcagtgaccc ctgcctagct gataacatca cctatgacat cagaaaaact 2400
102 tgcctggaca gctatggtgt ttcacggctt agtggctcag tgtggacgat ggctggatct 2460
104 ccctgcacaa cctgtaaatg caagaatgga agagtctgtt gttctgtgga tttttgagtgt 2520
106 cttcaaaata attgaagtat ttacagtgga ctcaacgcag aagaatggac gaaatgacca 2580
108 tccaacgtga ttaaggatag gaatcggtag tttggtttt ttgtttgttt tgtttttta 2640
110 accacagata attgccaaag tttccacctg aggacggtgt ttcggaggtt gccttttgga 2700
112 cctaccactt tgctcattct tgctaaccta gtctaggtga cctacagtgc cgtgcattta 2760
114 agtcaatggt tgttaaaaga agtttcccgt gttgtaaatc atgtttccct tatcagatca 2820
116 tttgcaaata catttaaatg atctcatggt aaatggttga tgtattttt gggtttattt 2880
118 tgtgtactaa ccataataga gagagactca gctcctttta tttattttgt tgatttatgg 2940
120 atcaaattct aaaataaagt tgcctgttgt gactttt 2977
123 <210> SEQ ID NO: 2
124 <211> LENGTH: 1722
125 <212> TYPE: DNA
126 <213> ORGANISM: Homo sapiens
128 <220> FEATURE:
129 <221> NAME/KEY: misc_feature
130 <223> OTHER INFORMATION: n is a, c, g, or t
133 <400> SEQUENCE: 2
134 gatcagtgct gccgtgtctg tagaggtcat aacttttgtg cagaaggacc taaatgtggt 60
136 gaaaactcag agtgcaaaaa ctggaataca aaagctactt gtgagtgcaa gagtggttac 120
138 atctctgtcc aggggagact ctgcctactg tgaagatatt gatgagtgtg cagctaagat 180
140 gcattactgt catgccaata ctgtgtgtgt caaccttcct gggttatatc gctgtgactg 240
142 tgtcccagga tacattcgtg tggatgactt ctcttgtaca gaacacgatg aatgtggcag 300
144 cggccagcac aactgtgatg agaatgccat ctgcaccaac actgtccagg gacacagctg 360
146 cacctgcaaa ccgggctacg tggggaacgg gaccatctgc agagctttct gtgaagaggg 420
148 ctgcagatac ggtggaacgt gtgtggctcc caacaaatgt gtctgtccat ctggattcac 480
150 aggaagccac tgcgagaaag atattgatga atgttcagag ggaatcattg agtgccacaa 540
152 ccattcccgc tgcgttaacc tgccagggtg gcaccactgt gagtgcagaa gcggtttcca 600
154 tgacgatggg acctattcac tgtccgggga gtcctgtatt gacattgatg aatgtgcctt 660
156 aagaactcac acctgttgga acgattctgc ctgcatcaac ctgcagggg gttttgactg 720
158 tctctgcccc tgtgggccct cctgctctgg tgactgtcct catgaagggg ggctgaagca 780
160 caatggccag gtgtgggacct tgaaagaaga caggtgttct gtctgctcct gcaaggatgg 840
162 taagatattc tgccgacgga cagcttgtga ttgccagaat ccaagtgctg acctattctg 900
164 ttgcccagaa tgtgacacca gagtcacaag tcaatgttta gaccaaaatg gtcacaagct 960
166 gtatcgaagt ggagacaatt ggacccatag ctgtcagcag tgtcggtgtc tggaaggaga 1020
168 ggtagattgc tggccactca cttgcccccaa cttgagctgt gagtatacag ctatcttaga 1080
170 aggggaatgt tgtccccgct gtgtcagtga ccccctgccta gctgataaca tcacctatga 1140
172 catcagaaaa acttgcctgg acagtatggt gtttcacggc ttagtggctc agtgtggacg 1200
```

```
        174 atggctggat ctccctgcac aacctgtaaa tgcaagaatg gaagagtctg ttgttctgtg   1260
        176 gattttgagt gtcttcaaaa taattgaagt atttacagtg gactcaacgc agaagaatgg   1320
        178 acgaaatgac catccaacgt gattaaggat aggaatcggt agtttggttt ttttgtttgt   1380
        180 tttgtttttt taaccacaga taattgccaa agtttccacc tgaggacggt gtttggaggt   1440
        182 tgccttttgg acctaccact ttgctcattc ttgctaacct agtttaggtg acctacagtg   1500
        184 ccgtgcattt aagtcagtgg ttgttaaaag aagtttcccg cgttgtaaat catgtttccc   1560
W-->    186 ttatcagatc atttgcaaat acatttaaat gatntcatgg taaatgttgc tgtatttttt   1620
        188 ggtttatttt ctgtactaac ataatagaga gagantnagc tccttttatt tattttgttg   1680
        190 atttatggat caaattntaa aataaagttg cctgttgtgn aa                       1722
```

**RAW SEQUENCE LISTING ERROR SUMMARY**
**PATENT APPLICATION: US/10/527,786**

DATE: 03/25/2005
TIME: 09:02:14

Input Set : **A:\PTO.SR.txt**
Output Set: **N:\CRF4\03252005\J527786.raw**

<u>Please Note:</u>
**Use of n and/or Xaa have been detected in the Sequence Listing. Please review the**
**Sequence Listing to ensure that a corresponding explanation is presented in the <220>**
**to <223> fields of each sequence which presents at least one n or Xaa.**

Seq#:2; N Pos. 1594,1655,1657,1697,1720

VARIABLE LOCATION SUMMARY
PATENT APPLICATION:  **US/10/527,786**

DATE: 03/25/2005
TIME: 09:02:14

Input Set : **A:\PTO.SR.txt**
Output Set: **N:\CRF4\03252005\J527786.raw**

<u>Use of n's or Xaa's(NEW RULES):</u>
Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
in <220> to <223> section, please explain location of n or Xaa, and which
residue n or Xaa represents.

Seq#:2; N Pos. 1594,1655,1657,1697,1720

**VERIFICATION SUMMARY**
PATENT APPLICATION:  **US/10/527,786**

DATE: 03/25/2005
TIME: 09:02:14

Input Set : **A:\PTO.SR.txt**
Output Set: **N:\CRF4\03252005\J527786.raw**

L:9 M:270 C: Current Application Number differs, Replaced Current Application No
L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:186 M:258 W: Mandatory Feature missing, <222> Tag not found for SEQ ID#:2
L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:1560
M:341 Repeated in SeqNo=2